# Technology Opportunity

## Thin-Film and Coating Technologies

The National Aeronautics and Space Administration (NASA) seeks to transfer thin-film and coating technologies to industries who can take advantage of the many benefits that thin films and coatings have to offer.

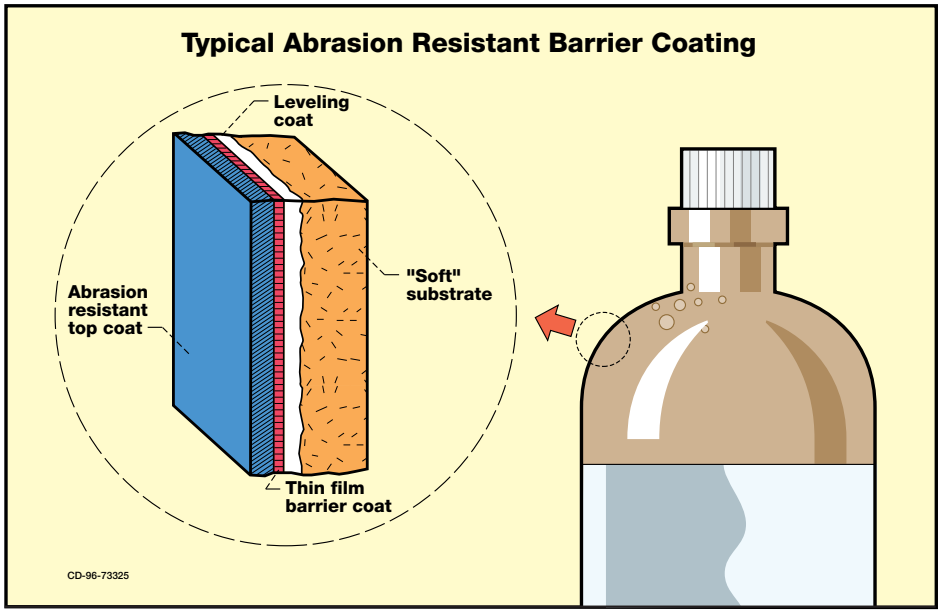
### Potential Commercial Uses

- Aerospace
  - Arc-proof surfaces
  - Atomic oxygen protection
  - Thermal control surfaces
- Automotive
  - Antifogging
  - Water repellence
  - Dry film lubrication
- Biomedical
  - Biofilm retardation
  - Antimicrobial surfaces
  - Stretchy glass
- Defense
  - Reduced strain-to-failure
  - Controlled surface conductivity
  - Increased infrared transmittance
- Food packaging
  - Chemical and oxygen barriers
  - Chemical inertness
  - Moisture barriers
- Manufacturing
  - Corrosion resistance
  - Wear resistance
  - Improved abrasion resistance
- Your industry

  NASA can develop specialized coatings to fit your property requirements

### Benefits

- Allows use of cost effective substrate materials
- Increases life of parts
- Provides opportunity for new products
- Enables specification of surface properties
- Implements thin-film and coating technologies with proven production processes




National Aeronautics and Space Administration
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## The Technology

For decades the Electro-Physics Branch at the NASA Glenn Research Center has been developing thin-film and coating technologies directed toward improved materials for the space program. The resultant wealth of thin-film and coating technology is being offered to the private sector. To date many industries have taken advantage of NASA's expertise and have benefited from advanced coating technologies in aerospace, automotive, biomedical, food packaging, manufacturing and military applications.

Thin films and coatings are produced by using such techniques as ion-beam sputter deposition, electron beam evaporation, and dipping and spraying. All of these techniques have been used commercially or have the potential to be scaled up for commercial use. Using NASA's advanced coating facilities and technical expertise, industry can develop, produce, and evaluate potential coating applications with a relatively small investment.

## Options for Commercialization

It is NASA's mission to commercialize its technologies. The Electro-Physics Branch at the NASA Glenn Research Center has successfully transferred thin-film and advanced coating technologies to a wide range of industries. There are two ways to partner with the Electro-Physics Branch, through a direct contract with NASA or through membership in the Advanced Coatings and Surface Texturing Consortium sponsored by the Great Lakes Industrial Technology Center.

## Contact

Commercial Technology Office
Attn. TOPS
NASA Glenn Research Center
Mail Stop 7-3
21000 Brookpark Road
Cleveland, OH 44135
Phone: (216) 433-3484
Fax: (216) 433-5012
E-mail: cto@grc.nasa.gov
http://cto.grc.nasa.gov

## Reference

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